

What Is Claimed Is:

1. A method for fabricating a nonvolatile memory device comprising:
  - forming an isolation layer and a non-active region in a semiconductor substrate;
  - forming an oxide layer and a polysilicon layer on the substrate;
  - forming a sacrificial layer on the polysilicon layer;
  - patterning the sacrificial layer to form polymer layers on sidewalls of the sacrificial layer, the polymer layers being generated from the etching of the sacrificial layer; and
  - forming a floating gate and a tunnel oxide using the sacrificial layer and the polymer layers as an etching mask.
2. A method as defined in claim 1, further comprising:
  - removing the polymer layers and the sacrificial layer; and
  - forming an insulating layer and a polysilicon layer over the substrate, the floating gate, and the tunnel oxide.
3. A method as defined in claim 1, wherein the sacrificial layer is formed of one selected from the group consisting of TEOS (tetraethyl orthosilicate) oxides and nitride.

4. A method as defined in claim 1, wherein a space between a two adjacent polymer layers is between 300Å and 1200Å.

5. A nonvolatile memory device comprising:  
a semiconductor substrate;  
a first floating gate; and  
a second floating gate adjacent the first floating gate, the first and second floating gates being separated by less than a lithographic minimum feature size.

6. A method for fabricating a nonvolatile memory device comprising:  
forming a first floating gate; and  
forming a second floating gate adjacent the first floating gate, the first and second floating gates being separated by less than a lithographic minimum feature size..